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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,347	10/31/2003	Xiaochun Li	539.005	2522

72088 7590 04/23/2008

WISCONSIN ALUMNI RESEARCH FOUNDATION
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EXAMINER	
EVANS, GEOFFREY S	

ART UNIT	PAPER NUMBER
3742	

NOTIFICATION DATE	DELIVERY MODE
04/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@boylefred.com

Office Action Summary	Application No.	Applicant(s)	
	10/699,347	LI, XIAOCHUN	
	Examiner	Art Unit	
	Geoffrey S. Evans	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 December 2007 and 10 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-14 and 16-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-14 and 16-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, and 9-14, 16-21 are rejected under 35 U.S.C. 102(b) as being anticipated by L'Esperance, Jr. in U.S. Patent No. 5,312,320. L'Esperance, Jr. teaches using a laser beam with UV radiation equal to 266 nm (see column 7, line 11) that can be used for laser ablation of an organic material (an eye), which is therefore considered capable of ablating a food product. The irradiated flux density is controlled to achieve the desired depth of cut (e.g. see abstract). L'Esperance, Jr. discloses using a pulsed laser (see column 4, lines 27-40). Regarding claim 21, since the specification discloses 266 nm as the closest laser to the wavelength of 200 nm recited in claim 21, it is considered that a 266 nm wavelength laser has a wavelength about equal to 200 nm.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over L'Esperance, Jr. in U.S. Patent No. 5,312,320 in view of Morris et al.in U.S. Patent No. 6,472,295. Morris et al. teaches selecting the repetition rate (pulse rate) to achieve the desired cut rate and depth (see column 3, lines 52-55). It would have been obvious to adapt L'Esperance, Jr. in View of Morris et al. to control the pulse rate to achieve the desired cut rate.

6. Claims 5,6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over L'Esperance, Jr. in U.S. Patent No. 5,312,320 in view of Oikawa et al. in Japan Patent No. 10-249,571. Oikawa et al. teaches changing the machining depth by adjusting the processing speed. It would have been obvious to adapt L'Esperance, Jr. in view of Oikawa et al. to provide this to change the machining speed to adjust a processing characteristic (i.e. machining depth). Regarding claim 8, L'Esperance, Jr. discloses using a laser beam with UV radiation equal to 266 nm (see column 7,line 11)

7. Claims 22-24,27 are rejected under 35 U.S.C. 103(a) as being unpatentable over L'Esperance, Jr. in U.S. Patent No. 5,312,320 in view of Lin in U.S. Patent No. 5,520,679. L'Esperance, Jr. teaches using a laser beam with UV radiation equal to 266 nm (see column 7, line 11) that can be used for laser ablation of an organic material having nutrients (an eye), which is therefore considered capable of ablating a food

product. The irradiated flux density is controlled to achieve the desired depth of cut (e.g. see abstract). L'Esperance, Jr. does not disclose the frequency of the laser pulses .Lin (679)teaches using a pulse repetition of 1-10,000 Hz to laser ablate a cornea and using nanosecond laser pulses. It would have been obvious to adapt L'Esperance, Jr. in view of Lin to provide this to expeditiously and accurately cut the eye. Regarding claim 27, L'Esperance discloses using a laser with a pulse frequency of at least about 1 MHz (see column 9,line 14) that is disclosed as being frequency adjusted to its 4^{th} harmonic, which would enable ablation that does not substantially heat the food product(eye). It would have been obvious to adapt L'Esperance, Jr. in view of Lin to provide this frequency of at least 1Mhz to more quickly perform ablation on the workpiece.

8. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over L'Esperance, Jr. in U.S. Patent No. 5,312,320 in view of Lin in U.S. Patent Application Publication No. 2001/0037105. Lin teaches using a laser with an average power of 4-5 watts (see paragraph 56). It would have been obvious to adapt L'Esperance, Jr. in view of Lin to provide this to for accurate cornea reshaping.

9. Applicant's arguments filed 26 December 2007 have been fully considered but they are not persuasive. The eye contains nutrients and therefore is considered to be food. Since Applicant's ultraviolet laser beam does not substantially raise the temperature of the workpiece when the wavelength is 150 to 280 nm , then the laser wavelengths within that range disclosed by some of the references herein (e.g. L'Esperance, Jr. in U.S. patent No. 5,312,320) must also have that characteristic.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey S. Evans whose telephone number is (571)-272-1174. The examiner can normally be reached on Mon-Fri 7:00AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571)-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey S Evans/
Primary Examiner, Art Unit 1793
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